

SY018 VOLTAGE TO CURRENT CONVERTER

INTRODUCTION

The SY018 DIN rail Voltage to 4-20mA signal converter is used to communicate analogue signals over long distances where electrical interference may be a problem. This solution is often used in the process control industry to collect the analogue values from a wide array of remote sensors. The converter is valuable because current signals are much less susceptible to noise than voltage signals. A voltage signal can be converted to current and broadcast over a long distance. 4-20 mA transmitters are common in the industry and used with high-quality sensors. The resulting signals can be used in controlling drives or to trigger instruments that have settable thresholds and limits.

Voltage input ranges of 0-2V, 0-2.5V, 0-5V and 0-10V can be specified.

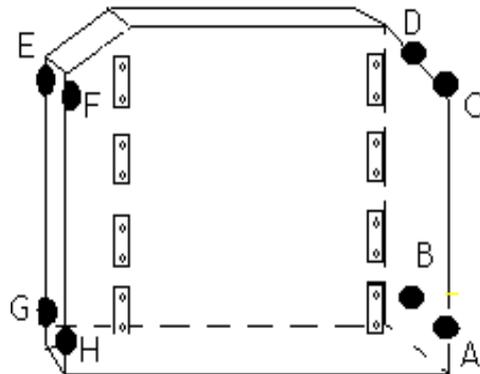


Fig 1: Typical Product layout

Special unique features;

- Fast output response 6 micro seconds
- Has an input diode to protect against reverse polarity connection
- Designed to run on typical nominal voltage of 24V
- Very high immunity to noise interference
- Supplied as a built pcb
- or in a flame resistant polyamide case
- Cased it can be mounted on asymmetric or symmetric Din rails

Designed and manufactured in the UK by Synectic Electronics Trading name of Synectic Design Ltd
 registered in GB No. 2494620

INSTALLATION

Before installation check that the unit is secure and not damaged and that the environment specifications for the product are as indicated in the manual.

For the installation take into consideration the following:

- I. Ensure easy access to the component
- II. Ensure the component is stable upon installation
- III. Avoid contact with water or fluids for the safety of the component

Input and output connections

The SY018 has got signal and excitation input terminals and these are connected as described below.

Terminal	Connection
A	NC (not connected)
B	Input Signal +
C	Input Signal -
D	NC
G	Output
H	0V

Power Connections

E	+24V
F	0V

Connections are made via rising clamp terminals with 3.5 x 2.5mm apertures. The different connections are described in the input/output and power supply sections

Characteristics

Parameter	Typical	Minimum	Maximum
Supply Voltage (Vdc)	24	17	30
Module power consumption (mW)	360	NA	NA
Operating temperature(°C)		50	
Drift uV/C output	0.1		
Span adjustment	+/- 20%		
Noise level: I420 :V100 (mV)		7uA (0.7mV) 5	
Zero adjustment (at output)	0-11mA		
Output response 4mA to 20mA 20mA to 4mA	6usec 6usec		
Physical dimensions	72.5mm x 18mm x 62mm		

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